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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,102	08/23/2004	Joseph C. Schneider	14715 (ITWO:0322)	5101

52145 7590 08/30/2010  
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EXAMINER
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PASCHALL, MARK H

ART UNIT	PAPER NUMBER
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3742

MAIL DATE	DELIVERY MODE
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08/30/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOSEPH C. SCHNEIDER

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Appeal 2009-006198  
Application 10/711,102  
Technology Center 3700

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Before: WILLIAM F. PATE III, STEVEN D. A. MCCARTHY, and  
KEN B. BARRETT, *Administrative Patent Judges*.

PATE III, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

### STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from a rejection of claims 1-22 and 24. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

The claims are directed to multi-position head plasma torch. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A plasma cutting torch comprising:
  - a torch body having a handle which extends from a first end to a second end, the first end being fixed with respect to the second end; and
  - a torch head having a restricted pivotable connection to the torch body and configured to generate a cutting arc at a plurality of angles relative to the torch body.

### REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Stuart	US 5,338,917	Aug. 16, 1994
New	US 5,916,465	Jun. 29, 1999
Sorkin	US 6,380,508	Apr. 30, 2002

### REJECTIONS

Claims 1-22, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sorkin, New, and Stuart. Ans. 3.

Claims 1-22, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sorkin and Stuart. Ans. 4.

## OPINION

We have carefully reviewed the rejections on appeal in light of the arguments of the Appellant and the Examiner. As a result of this review, we have determined that the applied prior art establishes the prima facie obviousness of claims 1, 2, and 6-9. Likewise we have determined that the applied prior art does not establish the prima facie obviousness of claims 3-5, 10-22 and 24. Our reasons follow.

The following constitutes our findings of fact with respect to the scope and content of the prior art and the differences between the prior art and the claimed subject matter. Sorkin teaches the use of a plasma cutting torch for cutting a tendon of a post-tensioned concrete structure. Col. 1, l. 64 - col. 2, l. 12; col. 3, ll. 25-40. The cutting tool has a head and a nozzle extending transverse to the longitudinal axis of the handle. Col. 5, ll. 30-31. The head 24 is rigidly fastened to the handle 22. *See* Col. 7, ll. 1-8. Sorkin differs from the claimed subject matter in that the head is rigidly connected to the handle, i.e., it is not pivotable.

New discloses a tungsten inert gas torch. Col. 2, ll. 7-13. The body of New, which constitutes the handle, is made of a front section 52 and a rear section 54. These sections cooperate with the tubular swivel housing to permit the head of New to pivot via the ball and socket spherical end 78. Col. 4, ll. 52-65. While the head 70 of New is pivotable, New differs from the claimed subject matter in that the torch body does not have a first end fixed with respect to a second end.

Stuart discloses a metal inert gas (MIG) welding system. Col. 4, ll. 35-42. Figure 11 is an enlarged sectional view of a ball and socket joint 100 which connects the torch head to the handle. Col. 9, ll. 1-22. A wave washer assembly is provided with the collet 206 to release the ball and

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socket joint 100 and allow the head to pivot with respect to the rigid handle. Col. 9, ll. 23-42. Stuart differs from the claimed subject matter of claim 1 only in the fact that it discloses an MIG torch rather than a plasma cutting torch.

In view of these teachings of the prior art, it is our conclusion that the prior art establishes the prima facie obviousness of claims 1, 2 and claims 6-9 that depend therefrom. In our view, New suggests a pivotable head on the plasma cutting torch of Sorkin. This is merely the simple substitution of one known element for another to obtain predictable results. Stuart further teaches that the handle of a torch can be made as a one piece assembly rather than, as New teaches, of two relatively movable body parts. Thus we find that claim 1 is prima facie obvious over the combined teachings of Sorkin, New and Stuart.

Moreover, claim 1, and claims 2 and 6-9 that depend therefrom, are prima facie obvious over the teachings of Sorkin and Stuart when considered without New. Stuart clearly teaches a pivotable head which would be a simple substitution for the rigid head in Sorkin. This simple substitution of one known element for another, to obtain predictable results, would be prima facie obvious. Therefore claims 1 and claims 6-9 which depend therefrom are prima facie obvious from the combined teachings of Sorkin and Stuart.

Appellant argues that the rejections based on the combined teachings of Sorkin, New and Stuart and the combined teachings of Sorkin and Stuart are contradictory. We disagree. As noted above, we have failed to find any contradiction in the rejections as laid out by the Examiner. On page 4 of the Brief, Appellant argues that the different purposes of the torches are indicative of nonobviousness. However, we are in agreement with the Examiner that one of ordinary skill in the art understands the relationship

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between welding and cutting using plasma and an electric arc. We also note that a strict requirement for motivation is inimical to the Supreme Court's standard on obviousness. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 402 (2007). On pages 6 and 7 Appellant argues that the devices cannot be physically combined and would have a duplicative structure if so combined. However, "it is not necessary that the inventions of the references be physically combinable to render obvious the invention under review." *In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983). "Combining the teachings of references does not involve an ability to combine their specific structures." *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (emphasis omitted).

Appellant also argues that there is no rationale or articulated reasoning with rational underpinnings supporting the Examiner's rejection. As noted above, we have found the necessary rationale. Appellant argues that there would be two structures that allow pivoting if Sorkin, New and Stuart were combined. However, as noted above, only one pivoting structure, suggested by either New or Stuart, would be substituted by one of ordinary skill. And finally, Appellant argues that none of the applied prior art teaches restricted pivoting as called for in claim 1. New and Stuart clearly disclose a restriction on the amount of pivoting that the ball and socket can undergo. For example, Figures 6-8 of Stuart disclose the range of motion permitted by Stuart's ball and socket joint. Therefore, we are in agreement with the Examiner that the applied prior art shows the restricted pivotal connection called for in claim 1.

Turning to a consideration of claims 3-5 and 10 on appeal, we agree with the Appellant that the applied prior art does not establish the prima facie obviousness of a ratcheted connection between a torch head and a torch body or handle, nor does the prior art suggest predefined set points for the pivotable connection. Accordingly, the subject matter of claims 3-5 and 10

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and claims 11-16 that depend therefrom are not prima facie obvious from the applied prior art.

Turning to claim 17 on appeal, we note that, as disclosed, the pivotable connection of Appellant's invention allows movement of the head "two-dimensionally" as disclosed in paragraph 31 of the Specification. As we understand the term, "two-dimensionally" means in a single plane which, in this instance, limits the rotation of the claimed torch head to a single axis. Since there are three axes in space, we understand the claim to call for a connection which prevents movement along two axes and permits it along one pivot axis. Since New and Stuart disclose ball and socket joints which permit movement along more than one axis, the applied prior art does not establish the prima facie obviousness of the subject matter of claim 17. Accordingly, we will not affirm the 35 U.S.C. § 103 rejection of claims 17-22 and 24.

#### SUMMARY

The rejection of claims 1, 2, and 6-9 under 35 U.S.C. § 103 as unpatentable over Sorkin in view of New and Stuart is affirmed.

The rejection of claims 3-5, 10-22, and 24 under 35 U.S.C. § 103 as unpatentable over Sorkin in view of New and Stuart is reversed.

The rejection of claims 1, 2, and 6-9 under 35 U.S.C. § 103 as unpatentable over Sorkin in view of Stuart is affirmed.

The rejection of claims 3-5, 10-22, and 24 under 35 U.S.C. § 103 as unpatentable over Sorkin in view of Stuart is reversed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

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